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NEW APPLICATION

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Arizona Corporation Commission
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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE, Chairman
BOB STUMP
SANDRA D. KENNEDY
PAUL NEWMAN
BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR APPROVAL OF TRANSMISSION COST ADJUSTOR CHARGES.

DOCKET NO. E-01345A-12-0175

APPLICATION/NOTICE

I. INTRODUCTION

Pursuant to Decision No. 67744 (April 7, 2005), Arizona Public Service Company ("APS" or "Company") hereby requests that the Commission approve Revision No. 7 to Adjustment Schedule TCA-1 ("TCA-1"), effective July 1, 2012. *See* Attachment A. TCA-1 reflects the transmission rates authorized by the Federal Energy Regulatory Commission ("FERC") that will become effective for users of the APS transmission system as of June 1, 2012. A red-lined version of TCA-1 is also included with this Application as Attachment B. In the alternative, if the Commission approves the settlement agreement at issue in APS's rate case docket no. E-01345A-11-0224, APS hereby provides notice that this TCA adjustment will become effective July 1 of this year, without the need for Commission approval, unless either Staff or the Commission requests otherwise. This alternative process is consistent with Section 13 of the Settlement Agreement, and the Commission's admonition in Decision No. 72430 (June 27, 2011) that "[g]iven the constraints on Commission resources, we do not believe that it is an efficient use of those resources to require Commission order to establish a new TCA rate, after the transmission rates have been established by FERC."

II. BASIS FOR THE COMPANY'S REQUEST

In Decision No. 67744, the Commission approved a transmission cost rate adjustment mechanism, or TCA. In Decision Nos. 70179 (February 27, 2008), 70400 (July 3, 2008), 71244 (August 6, 2009), 71448 (December 30, 2009)[1], 71827 (August 10, 2010) and 72430 (June 27, 2011), the Commission approved revisions to TCA-1. The version of such rate adjustment schedule currently in effect is affixed hereto as Attachment C.

At the time the Commission entered Decision No. 71244, the Company was directed to submit a report on transmission additions that in part were reflected in the TCA. Attachment D hereto represents the 2011-2013 Transmission Additions Report requested by the Commission.

III. IMPACT OF THE PROPOSED TCA CHARGES

The impact on retail revenues from the new TCA charges is an overall increase of approximately $18 million per year. Because the impact on specific customer classes is dependent upon not only the overall revenue requirement but the allocation of that revenue requirement and the billing determinants (kWh or kW, as appropriate) over which that revenue requirement is collected, each specific class will realize a modest difference in the percent increase. For a typical APS residential customer, the TCA would increase roughly $1.31 per month or 1.0%. An analysis of typical customer bill impact is shown on Attachment E. The increase in TCA charges includes a true-up for a under collection of revenues from customers as a result of the previous year's review period of the FERC formula rate method.

FERC's cost allocation method assigns transmission costs based on customer class demand during the four summer peak months. For that reason, the allocation of revenue requirement responsibility for transmission costs varies from year to year, depending upon what class produced the greatest demand at system peak relative to other classes of retail customers. In 2011, the residential customer class continued to contribute more demand to the summer peaks

[1] There was no change in the TCA rate at that time but merely some minor edits to the language of the schedule.

than in prior years, both in absolute terms and relative to other classes of APS customers, and its relative revenue requirement responsibility increased accordingly.[2] However, the 2011 residential energy sales were higher than in the previous year.[3] This mitigated a portion of the upward rate pressure for the residential class. Such relatively small swings in revenue requirement responsibility from one year to the next are to be expected, and they could just as easily produce the opposite result in future years. For example, the 2010 TCA adjustment saw a decrease for residential service customers and an increase for industrial service customers.

IV. CONCLUSION

APS requests that the rates become effective on July 1, 2012. The rates posted by APS on OASIS on May 14, 2012 are to become effective for transmission customers on June 1st. Retail transmission charges should be effective as close to that June 1 date as is possible.

APS believes the requested TCA charges are fully consistent with the terms of Decision Nos. 67744, 69663, 70179, 70400, 71244, 71448, 71827and 72430. APS therefore requests that the Commission approve TCA-1, attached hereto as Attachment A, effective for all affected bills issued by the Company beginning in the first billing cycle of July, 2012.

RESPECTFULLY SUBMITTED this 14th day of May 2012.

Thomas L. Mumaw
Meghan H. Grabel
Attorneys for Arizona Public Service Company

[2] In 2010, residential customers were 57.3% of total retail summer demand, while the commercial and industrial customer classes were 36.1% and 6.6%, respectively. In 2011, residential customers comprised 60.6% of total retail demand.

[3] Residential energy consumption increased 1.25% from 2010 to 2011.

The original and 13 copies of the foregoing were
filed this 14th day of May 2012 with:

Docket Control
Arizona Corporation Commission
1200 West Washington
Phoenix, AZ 85007.

And copies of the foregoing were hand-delivered or e-mailed to:

Gary Pierce, Chairman Commissioner
Paul Newman, Commissioner
Sandra K. Kennedy, Commissioner
Bob Stump, Commissioner
Brenda Burns, Commissioner
Ernest Johnson
Steve Olea
Terri Ford
Barbara Keene
Robert Gray
Rebecca Wilder
Janice Alward
Janet Wagner
Maureen Scott
Lyn Farmer
Jodi Jerich, Residential Utility Consumer Office

ATTACHMENT A

ADJUSTMENT SCHEDULE TCA-1
TRANSMISSION COST ADJUSTMENT

APPLICATION

The Transmission Cost Adjustment ("TCA") charge shall apply to all Standard Offer retail electric schedules, with the exception of Solar-2. All provisions of the customer's current applicable rate schedule will apply in addition to this charge.

ANNUAL ADJUSTMENT

Standard Offer rate schedules covered by this charge include a transmission component of base rates that was originally established at $0.00476 per kilowatt-hour in accordance with A.C.C. Decision No. 67744. Decision No. 67744 also established the TCA. Decision No. 69663 modified the collection of transmission costs in retail rates to tie to the costs found in the FERC approved Open Access Transmission Tariff.

RATE

The charge shall be applied as follows:

Customer Class	TCA Charge
Residential	$0.005403/kWh
General Service 20 kW or less	$0.002550/kWh
General Service over 20 kW, under 3,000 kW	$0.812/kW
General Service 3,000 kW and over	$0.748/kW

ATTACHMENT B

ADJUSTMENT SCHEDULE TCA-1
TRANSMISSION COST ADJUSTMENT

APPLICATION

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RATE

The charge shall be applied as follows:

Customer Class	TCA Charge
Residential	$0.005403~~0.004211~~/kWh
General Service 20 kW or less	$0.002550~~0.002464~~/kWh
General Service over 20 kW, under 3,000 kW	$0.812~~.837~~/kW
General Service 3,000 kW and over	$0.748~~0.615~~/kW

ATTACHMENT C

ADJUSTMENT SCHEDULE TCA-1
TRANSMISSION COST ADJUSTMENT

APPLICATION

The Transmission Cost Adjustment ("TCA") charge shall apply to all Standard Offer retail electric schedules, with the exception of Solar-2. All provisions of the customer's current applicable rate schedule will apply in addition to this charge.

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RATE

The charge shall be applied as follows:

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Residential	$0.004211/kWh
General Service 20 kW or less	$0.002464/kWh
General Service over 20 kW, under 3,000 kW	$.837/kW
General Service 3,000 kW and over	$0.615/kW

ATTACHMENT D

Arizona Public Service Company
2011 Transmission Actual Addition Dollars and Estimated O&M

1	W302274	Granite Reef Substation Site Preparation	2,073,555	Design and construct a site for an atypical 3-xfmr substation. Work includes grading & drainage, CMU wall, landscaping (including plant salvage), access drives, street improvements, U/G work including Grounding, conduit, duct banks, and equipment foundations. The 69kV is Underground in and out. The wall is a specially designed architectural wall to resemble a building with design to mirror the Villages at Grayhawk.	N/A	N/A	$70,916	Jan-11
2	W461339	Moenkopi: Replace Shunt Reactor	796,784	This WA is to replace the Edison Reactors at Moenkopi per the Edison Reactor Replacement Schedule. SR162 and SR163 are to be shipped to Four Corners to match up with SR164 (FC-MK line). Fire Wall & Oil Containment Req'd. Three reactors to be set on cribbing, dressed by Siemens while foundations & barriers are being installed. Siemens will transfer fully dressed reactors to new foundation	N/A	NA	$27,250	Jan-11
3	W422505	Cholla-Pinnacle Peak 345kV Reconductor	650,136	APS to reconductor a one mile section of both 345kV circuits between Cholla and Pinnacle Peak in order to improve the continuous and emergency rating of both circuits. The reconductor will begin at lattice structures #58/1 (just north of FR300 on the Mogollon Rim) and extends for one mile N.E. to Structures #57/1. Existing lattice structures #57/2 to be replaced with Taller steel H-frame structures to provide adequate ground clearance for the new conductor. This job is to be worked under a planned outage of both circuits beginning with the west circuit (Cholla - Preacher Canyon) on October 25th, 2010. The east circuit (Cholla - Pinnacle Peak) will be taken out of service upon completion of work on the west circuit and is expected to remain out of service until November 30, 2010.	N/A	2	$22,235	Jan-11
4	W270814	East End Substation/New Substaion & 3 Feeder Ties	290,382	East End Substation: Construct three new feeder ties. Install new feeder ties out of east end substation from feeders EE02, EE04, and EE05. EE02 and EE04, which are IT ties into existing feeders in MH510904. EE05 is to tie into existing feeder in MH510905. The new feeder ties are also to be installed at SC631391 to SC501074, SC559118, TK1343D, MSC12360 and MSC 7111.	N/A	N/A	$9,931	Jan-11
5	W362501	TS9 to Pinnacle Peak 230/500kV PRO	412,361	Acquire 26 miles of 230/500kV Right-of-Way between TS9 and Pinnacle Peak Substations. APS will own 100% of the 230kV circuit and 50% of the 500kV circuit. SRP will own the other 50%. SRP will contribute the vacant position in its Westwing to Pinnacle Peak 230kV corridor lying east of I-17. APS will contribute space in its Pinnacle Peak Substation.	The Morgan (TS9) - Pinnacle Peak project helps schedule renewables to the Phoenix Valley by increasing the scheduling capability from the PV Hub and Navajo system.	26 miles of right-of-way	$12,928	Feb-11
6	W308848	North Black Canyon Corridor/UG 69kV	640,126	The Gateway - Gavilan Peak 69kV transmission line is needed to preserve continuity of service for the loss of either of the Adobe - Deer Valley or Deadman Wash - New River 69kV transmission lines.	N/A	11.5	$20,068	Feb-11
7	W308852	North Black Canyon Corridor/UG 69kV	308,737	The Gateway - Gavilan Peak 69kV transmission line is needed to preserve continuity of service for the loss of either of the Adobe - Deer Valley or Deadman Wash - New River 69kV transmission lines.	N/A	11.5	$9,679	Feb-11

Arizona Public Service Company
2011 Transmission Actual Addition Dollars and Estimated O&M

8	W493288	Hoodoo Wash (Q43) Network Upgrade - Phase 1	2,149,868	Construct electric facilities to support a new 290 MW PV Solar Generator, Agua Caliente (Q43), along the Hassayampa - North Gila 500kV line. The project will include a new 500kV switchyard. This project is to track those costs that will be paid back to the customer as part of the Large Generator Interconnection Agreement. APS has entered into an LGIA with the customer First Solar to provide an interconnection by 12/1/11.	This new switchyard provides the interconnection point for a solar generation project that has gone into service and also the proposed interconnection point for several future renewable projects.	N/A	$61,271	Mar-11
9	W493289	MG-PP Pinnacle Peak: 230kV Upgrades	1,470,327	Due to the Morgan-Pinnacle Peak project three 230kV breakers will be upgraded (PP752, PP755, PP758), one 230kV circuit breaker will be replaced (PP748), and upgrades to two disconnect switches (PP711 and PP719) and bay 1 in the SRP yard will be done. The tie lines between the SRP and WAPA yard will also be upgraded.	The Morgan (TS9) - Pinnacle Peak project helps schedule renewables to the Phoenix Valley by increasing the scheduling capability from the PV Hub and Navajo system.	N/A	$41,904	Mar-11
10	W423219	Baja To Waldrip 69kV Line - Phase 2	1,444,521	This line project is the second of five phases that is needed to tie the existing Baja substation into the new Waldrip substation planned for Q2 of 2012.	N/A	1.5	$41,169	Mar-11
11	W497006	Retrofit/Replace complete Capacitor at Surprise Substation	251,225	Capacitor Bank at Surprise Substation shall be retrofitted for higher voltage withstand or higher stress. Capacitor bank, shunt, 69kV, 53 MVAR, fuseless, comprised of 120 each, 441 KVAR, 10.46kV capacitor units; 3 elevating structures, 1 for each phase; 350kV bil insulators & support structure for provision for mounting neutral ct (by user) & corresponding bus work & intra-connection material in accordance with cooper quote # bed4009467 dated on May 3, 2010. Each capacitor unit shall be designed for special APS low stress value (1634 v/mil).	N/A	N/A	$6,444	Apr-11
12	CK4TR	Main Transformer Rewind at PV	1,684,230	This is the repair of a transmission transformer at Palo Verde.	N/A	N/A	$38,400	May-11
13	FBC90166	U4 GSU Transformer T629 Replacement at the Four Corners 345kV Switchyard	576,468	Our step-up transformers fall under FERC account 353, which is a component of Plant in Service (FERC Form 1 page 204-207). Note: there is a separate adjustment as part of the annual FERC Formula rate that backs the step up transformers out.	N/A	N/A	$13,143	May-11
14	W434200	North Gila: Add 69kV (NG062) PCB F	323,275	The Purpose for this WA# is to add a new 69kV PCB Breaker for the Sanguinette Substation being built to be placed in service. The predicted 2009 nomogram is limited by Yuma import gate constraints for various outages.	N/A	N/A	$7,371	May-11
15	WA42648	M-116 Stopper Pole Program - Midway	274,619	This WA will fund the next phase of the Stopper Pole program. M-116-2 AND M-116-3 lines from Midway Substation to Crater substation. These two line sections were next on the stopper pole program schedule.	N/A	N/A	$6,261	May-11

Arizona Public Service Company
2011 Transmission Actual Addition Dollars and Estimated O&M

16	W327449	Palo Verde Switchyard; Replace Seven 500kV SFA breakers	2,708,234	Replace seven 500kV SFA breakers	N/A	N/A	$54,029	Jun-11
17	W362422	Pinnacle Peak East Substation	2,463,531	The 4th Pinnacle Peak 230/69kV transformer is needed to preserve continuity of service for loss of either of the Adobe - Deer Valley 69kV transmission lines or one of the adjacent Pinnacle Peak 230/69kV transformers.	N/A	N/A	$49,147	Jun-11
18	WA4619	Arrowhead to Bell Reconductor (Rebuild)	1,922,103	The Arrowhead - Bell 69kV rebuild is needed to preserve continuity of service for the loss of the Westbrook - Westwing 69kV transmission line.	N/A	2.6	$38,346	Jun-11
19	WA40936	Lindsey Tower - Emergency Restoration	1,555,265	Lindsey Tower emergency Restoration System is a kit designed to our system and will be utilized to make temporary repairs and restore power in a timely manner until permanent repairs can be made.	N/A	N/A	$31,028	Jun-11
20	WA43162	Wickenburg Substation: Add a Control House	1,031,492	This WA# is for the installation of a control house and all new relaying and removal of the existing outdoor control cabinets with all electromechanical relays. Low-side breakers will be installed at the substation for added protection and reliability.	N/A	N/A	$20,578	Jun-11
21	W359498	Granite Reef Substation underground 69kV Feed	663,409	The Granite Reef substation is needed to serve the growing need for electric energy for the Northeast Valley area.	N/A	0.5	$13,235	Jun-11
22	WA27732	Cholla Sub: Replace 500kV breakers	2,052,074	This project replaces 34+ year old CH256 & CH1052 breakers, associated CTs and applicable switches. 500kV 2 pressure, live tank breakers are obsolete, require high maintenance, and are expensive to overhaul.	N/A	N/A	$40,939	Jun-11
23	WA33050	Parker to Planet - Phase 2	479,803	APS to install 5500 feet of 3-A795V (69kV) in the under build position of the Parker to Bagdad 69kV line to accommodate for the Planet Ranch Tap and to be able to do operational switching on the south side of Bill Williams River. Structures will be installed on W436334.	N/A	N/A	$8,205	Jul-11
24	W411390	NG5 CBI AT-2008-01 North Gila 500kV	374,280	Installation of a card reader access system, door alarm system, CCTV assessment system and IP network infrastructure for substation control house.	N/A	N/A	$6,400	Jul-11
25	WA84960	M-27-4, Paradise - Roadrunner, 17 Poles	325,714	M-27-4, Paradise to Roadrunner, Install 17 70-Ft. Poles	N/A	N/A	$5,570	Jul-11
26	WF11RWTRA	Transmission R/W Capital Leases	2,232,289	Work order for the renewal of capital transmission leases greater than $5000.	N/A	N/A	$31,810	Aug-11
27	W498102	Pinnacle Peak: design, engineer, implement and support a communication/information infrastructure	1,843,129	IS will design, engineer, implement and support a communication/information infrastructure that overlays the Pinnacle Peak substation. This system is a collaboration of multiple disciplines and technologies based on Energy Delivery overall strategic communication needs and requirements. APS's portion of this WA is anticipated to be 54.55%. Plant dollars reflect APS's share.	N/A	N/A	$26,265	Aug-11
28	WA96724	M-11-10 - 59th Avenue/Union Hills (Storm)	309,040	This WA will capture all costs associated with replacement of 9 poles and two 69kV re-frames damaged by a storm.	N/A	N/A	$4,404	Aug-11

Arizona Public Service Company
2011 Transmission Actual Addition Dollars and Estimated O&M

29	WA96282	M-22-2 S 27th Avenue/ Van Buren	291,277	This WA will capture the costs associated with replacing 8 poles damaged by a storm.	N/A	N/A	$4,151	Aug-11
30	WA88510	SW-2-8 and SW-2-10 Quartzsite (17 Poles)	271,988	Install 17 steel poles with clean framing, no underbuild to replace 17 wood poles lost during the storm.	N/A	N/A	$3,876	Aug-11
31	WPC0114	GSU Transformer Replacement (T1687) U1-4 at West Phoenix	3,050,899	Our step-up transformers fall under FERC account 353, which is a component of Plant in Service (FERC Form 1 page 204-207). Note: there is a separate adjustment as part of the annual FERC Formula rate that backs the step-up transformers out.	N/A	N/A	$34,780	Sep-11
32	WA59984	County Line (HY1) 69kV Rebuild	925,508	Rebuild 0.3 miles of 69kV line to double-circuit from Saddle Mountain tap west into the County Line switchyard. The switchyard is needed for system protection and reliability of the Gila Bend area.	The switchyard supports the interconnection of two AZ Sun photovoltaic projects in Gila Bend, Arizona.	0.3	$10,551	Sep-11
33	W473934	Pinnacle Peak 500kV Build New Substation - Phase 1	17,677,432	This project is needed to relieve overloads on the 230kV system in the Phoenix Valley being created by high west to east flows because of all the generation being injected from the west and north west. The 500kV line will provide an EHV path for power to flow from the west to the east side of the valley without having to flow through the internal 230kV lines. Due to the relief provided by the project, the load serving capability of the Phoenix area will also be increased. The project also provides the first leg of what will be a new 500kV outer loop around Phoenix, with the Palo Verde-Sun Valley-Morgan 500kV lines completing the northern portion. The project also provides increased voltage support in the Pinnacle Peak area, which in the past has demonstrated poor voltage performance during outages.	The Morgan-Pinnacle Peak project helps schedule renewables to Phoenix Valley by increasing the scheduling capability from the PV Hub and Navajo system.	N/A	$151,142	Oct-11
34	W360337	Pinnacle Peak 500kV Build New Substation - Phase 2	7,405,234	This project is needed to relieve overloads on the 230kV system in the Phoenix Valley being created by high west to east flows because of all the generation being injected from the west and north west. The 500kV line will provide an EHV path for power to flow from the west to the east side of the valley without having to flow through the internal 230kV lines. Due to the relief provided by the project, the load serving capability of the Phoenix area will also be increased. The project also provides the first leg of what will be a new 500kV outer loop around Phoenix, with the Palo Verde-Sun Valley-Morgan 500kV lines completing the northern portion. Project also provides increased voltage support in the Pinnacle Peak area, which in the past has demonstrated poor voltage performance during outages.	The Morgan-Pinnacle Peak project helps schedule renewables to Phoenix Valley by increasing the scheduling capability from the PV Hub and Navajo system.	N/A	$63,315	Oct-11
35	WA33197	County Line Substation: Build 69kV switchyard	3,313,646	Build a 4-breaker ring 69kV switchyard at the County Line location. The switchyard will include two 69kV capacitor banks, and is needed for system protection and reliability of the Gila Bend area.	Supports the interconnection of two AZ Sun photovoltaic projects in Gila Bend, Arizona.	N/A	$28,332	Oct-11

Arizona Public Service Company
2011 Transmission Actual Addition Dollars and Estimated O&M

36	W227868	Lincoln Street substation/230kV Pumphouse Installation	3,256,796	Install the 230kV Pressurization Plant at Lincoln Street to provide single contingency back up to the Country Club Pressurization Plant so that the three (3) 230kV High Pressure Oil Filled (HPOF) pipe type line segments exiting the Country Club Substation (the Country Club to Lincoln street, the Country Club to Grand Terminal, and the Country Club to Meadowbrook) can remain in operation in the Forced Cooling Mode during the summer loads. Without the forced cooling units operating in the summer months, we would have to operate the three 230kV line segments in the stagnant oil flow mode, which derates our cable circuit significantly and will not be able to carry the summer peak loading.	N/A	N/A	$27,846	Oct-11
37	W489832	Mazatzal Substation 345kV Loop	328,854	A Certificate of Environmental Compatibility (CEC) is required for the loop in and out of the new Mazatzal 345kV substation.	N/A	N/A	$2,812	Oct-11
38	WA96860	Red Lake Sub: Upgrades for Cedar Mountain	570,778	This is a project to interconnect a new Wind Generating Plant near Williams, Arizona to the APS transmission system. The project was initiated by Nextera Energy Resources, LLC as the Perrin Ranch Power Project. Nextera submitted an interconnection request with APS.	This work supports the Perrin Ranch Power Project, a 99 MW wind farm in Northern Arizona.	N/A	$3,253	Nov-11
39	W481249	Circuit Switcher 230kV Replacement at Verde Substation	316,770	Circuit Switcher 230kV Replace 1 - VE221J	N/A	N/A	$1,806	Nov-11
40	W360340	Pinnacle Peak Upgrade C/O (12) 230kV - Phase 3	6,748,189	This project is needed to relieve overloads on the 230kV system in the Phoenix Valley being created by high west to east flows because of all the generation being injected from the west and north west. The 500kV line will provide an EHV path for power to flow from the west to the east side of the valley without having to flow through the internal 230kV lines. Due to the relief provided by the project the load serving capability of the Phoenix area will also be increased. The project also provides the first leg of what will be a new 500kV outer loop around Phoenix, with the Palo Verde-Sun Valley-Morgan 500kV lines completing the northern portion. This project also provides increased voltage support in the Pinnacle Peak area, which in the past has demonstrated poor voltage performance during outages.	The Morgan-Pinnacle Peak project helps schedule renewables to Phoenix Valley by increasing the scheduling capability from the PV Hub and Navajo system.	N/A	$19,232	Dec-11
41	W305639	Baja to Waldrip 69kV Line - Phase 1	2,611,118	The new 69kV line is needed to loop in the San Luis and Baja substations. This line project is the first of five phases that are needed to tie the existing Baja substation into the new Waldrip substation planned for Q2 of 2012.	N/A	5	$7,442	Dec-11
42	W342410	Willow Lake to Prescott City: rebuild	1,139,493	Replace the 336ACSR conductor on the Willow Lake-Prescott City 69kV line with 795AA conductor with 12kV underbuild (0.5 miles).	N/A	1.2	$3,248	Dec-11

Arizona Public Service Company
2011 Transmission Actual Addition Dollars and Estimated O&M

43	W495685	Waldrip Substation: Site Prep for the Waldrip Switchyard	937,071	This work order to account for the cost related to completing the site preparations of the Waldrip switchyard in 2011. This new 69kV switchyard is needed by 6-01-12 to loop the San Luis and Baja substations into the APS sub transmission system in Yuma. Site preparation work includes: grading the site, constructing retention basins, constructing foundations, installing conduit and pre-cast trenches, installing the ground grid, constructing a perimeter chain link fence with swinging gates, constructing an access road to the substation site, establishing a finished grade, and stablizing the grade with a dust inhibitor.	N/A	N/A	$2,671	Dec-11
44	WA71319	Baja-Waldrip 69kV line - Phase 3: I	879,490	The new 69kV line is needed to loop in the San Luis and Baja substations into the APS sub transmission system in Yuma. The new 69kV line configuration will prevent power interruption and maintain a 97MW reserve requirement in the Yuma Area for loss of the Yucca - Laguna 69kV line.	N/A	1.5	$2,507	Dec-11
45	WA77295	Baja To Waldrip 69kV Line - Phase 4	826,531	The new 69kV line is needed to loop in the San Luis and Baja substations into the APS sub transmission system in Yuma. The new 69kV line configuration will prevent power interruption and maintain a 97 MW reserve requirement in the Yuma Area for loss of the Yucca - Laguna 69kV line.	N/A	2	$2,356	Dec-11
46	WA46633	Panda-New Bay for Q44	792,851	This project is to install a new breaker and A Frame to create a new Bay at the Panda Substation located in Glia Bend, Arizona. This work is necessary to allow for the interconnection of the Abengoa Solona Solar Plant(Q44) to the APS Transmission System. The Solana project will interconnect at the existing Liberty line bay at the Panda Substation. APS will build the new bay to serve as the new termination of the Liberty line. This work has been laid out as part of an LGIA.	This work is to accommodate for the interconnection of a new solar generation plant, Solana.	N/A	$2,260	Dec-11
47	WA46654	Liberty-Panda 230kV Relocate Panda Line	635,097	This project is to Relocate the current line termination of the Panda - Liberty 230kV line at Panda Substation located in Gila Bend, Arizona. The existing Liberty line terminates at a Bay which will be the new location of the Abengoa Solana Solar plant line. The relocation will allow for the elimination of transmission line crossings. This will improve reliability. The project consists of installing a new dead end structure in the Liberty - Panda line. In addition, approximately two(2) spans of 230kV line will be constructed to the location of the new Bay at Panda. The project will also remove one span between the new deadend structure and the existing structure. The existing structure will be used as part of the Line from Solana.	This work is to accommodate for the interconnection of a new solar generation plant, Solana.	<1	$1,810	Dec-11
48	W503543	Temporary OH 69kV and 12kV Relocation	324,128	Temporary relocation of overhead 69kV and 12kV lines. Overhead Facilities are in conflict with a new ADOT bridge at the intersectioin of Loop 303 FW and Cactus Road. This work will have to be coordinated with WA84615 where the 12kV line will be converted to underground.	N/A	1	$924	Dec-11
49	CK1CU	Main Transformer C Replacement U1	300,059	This is for the replacement of a bad transmission transformer at Palo Verde Unit 1.	N/A	N/A	$855	Dec-11

Arizona Public Service Company
2011 Transmission Actual Addition Dollars and Estimated O&M

50	WA57847	Recurrent Energy Ajo Solar 69kV Net	286,790	Replacing the static wire from Gila Bend sub to the tap going to Thayer sub with fiber. This work is necessary to provide relaying communications for the new Darby substation. Darby sub is being constructed to interconnect the new Ajo 1 solar plant, located in Ajo, Arizona. There is currently a signed and funded SGIA for this project.	This work supports the Ajo 1 5MW PV solar facility near Gila Bend, AZ.	3	$817	Dec-11
51	W493453	2010 Climbing Inspection - NW-6 - C	279,086	Crews changed out 45 fixtures, 2 anchors, 1 55' pole, and installed 136 ground rods on the Willow Lake-Williams 69kV line.	N/A	N/A	$795	Dec-11
52	WA33238	Saguaro Sub: 500kV 2011 SFA Breaker	834,783	This project replaces 34+ year old SG652 breaker and associated CTs (switches associated with this breaker have already been replaced). 500kV 2 pressure, live tank breakers are obsolete, require high maintenance, and are expensive to overhaul.	N/A	N/A	$2,379	Dec-11
53	W334959	Cholla: Upgrade controls	603,950	Upgrade controls associated with the Four Corners line relay replacement project on lines 1 & 2.	N/A	N/A	$1,721	Dec-11
54	W427281	McVay to Utting (Eagle Eye to Black Peak)	2,140,627	This Project is needed to provide the electrical support to the sub-transmission system to serve the need for electric energy in the La Paz area. The project will improve the continuity of service for the growing communities in the area for loss of the Eagle Eye - Salome 69kV line.	N/A	5.4	$6,101	Dec-11
55	WA30298	M-111-2 - Old Highway 80 - Watermelon Road	296,175	A storm near Gila Bend, AZ damaged 28 69kV poles. Poles need to be replaced and/or repaired.	N/A	N/A	$844	Dec-11
56		Work Orders > $250k	**88,351,597**					
57		Work Orders < $250k	**2,675,956**					
58		Joint Participant Cedar Mtn and Perrin	**(15,779,804)**	Accrual to book the NSTS share. Will Reverse when FERC rules on contract in Q1 2012.				
59		FERC Form 1	**75,247,750**					

Arizona Public Service Company
2012 Transmission Estimated Addition Dollars and O&M

1	WA27372	Oatman Mountain New Tower	$648,829	This project is in support of the Q43 FERC Interconnection (new solar generation plant). APS will be building a new 500kV substation, known as Hoodoo Wash, in support of this new generation. Since this is a 500kV substation, we are required to have 2 diverse communication paths for protective relaying. Given the location of Q43, it was determined that two microwave paths would be used; one to Oatman and one to Telegraph Pass, both of which we had line of sight. Our current tower at Oatman is not capable of handling the additional equipment required for Hoodoo Wash. Therefore, we have to construct a new tower at Oatman.	This project directly supports the new Hoodoo Wash 500kV substation, which is the interconnection point for the Agua Caliente Solar project (Q43) and the proposed interconnection point for multiple other solar projects requesting interconnection to APS.	N/A	$22,190	Jan-12
2	W463050	Eagle Eye to Black Peak - Phase 2	1,721,556	In 2011, the Black Peak - Utting 69kV line will be loaded 106% for loss of the Eagle Eye - Salome 69kV line. To prevent load shedding and voltage deviations of 13%, the Black Peak - Salome 69kV line will be rebuilt to 795ACSS.	N/A	5	$58,877	Jan-12
3	W375145	North Gila: Upgrade 69kV & 500kV Relaying	1,658,982	This job is to complete relaying at North Gila that was scheduled on an earlier job. The original job to do this was closed before this work could be completed.	N/A	N/A	$56,737	Jan-12
4	WA82726	Perimeter Security - Surprise 230kV	303,708	PERIMETER SECURITY - Surprise Substation - Initiate Project Requirements study.	N/A	N/A	$10,387	Jan-12
5	T26301	1103485 Enterprise Monitoring System	257,823	Transmission Hardware Upgrade	N/A	N/A	$8,083	Feb-12
6	WA54329	Westwing Substation: Add 500kV Reactor	853,159	Spare 170 MVAR reactor needed for light load conditions. EHV system and western Phoenix 230kV network exhibit high voltages during light load conditions, often above the operating limit. Palo Verde generation units are typically at full bucking during light load, and Redhawk generating units are run 'out of merit' to buck additional VARS off the system (e.g. reducing system voltages). Addition of SR270 will allow for more operational flexibility of voltage control, and partially mitigate the need for Redhawk to run 'out of merit' during light load conditions.	N/A	N/A	$26,747	Feb-12
7	W466905	Utting - Black Peak 69kV Rebuild - Phase 4	2,912,639	In 2011, the Black Peak - Utting 69kV line will be loaded 106% for loss of the Eagle Eye - Salome 69kV line. To prevent load shedding and voltage deviations of 13%, the Black Peak - Salome 69kV line will be rebuilt to 795ACSS. Phases 1 and 2 are planned to be complete by the end of 2011. Phases 3 and 5 are planned to be complete in 2012.	N/A	13.3	$91,311	Feb-12
9	T27072H	1108003 EMS Storage Enhancement	586,918	Transmission Hardware Upgrade for EMS at APS.	N/A	N/A	$18,400	Feb-12
10	WA32046	Downtown Phoenix Communications Upgrade	$353,205	The objective of this project is to upgrade the communications equipment in the downtown Phoenix area that is used for coordination of critical power line protective relaying and monitoring of substations. The equipment was installed in a 1993-1994 time frame and is now at the end of life expectancy.	N/A	N/A	$10,066	Mar-12

Arizona Public Service Company
2012 Transmission Estimated Addition Dollars and O&M

11	WA64068	Rebuild section Bay 3, Zone 4 at Meadowbrook Substation - Phase 3	455,178	Rebuild section Bay 3, Zone 4 at Meadowbrook Substation (Phase 3) and perform major maintenance. Two crews required. Main work items: -Replace cracked vessel, test gas and replace rupture safety discs in associated compartments -Perform CB ME322 hydraulic maintenance, test gas and replace rupture safety discs in associated compartments -Perform CB ME122 hydraulic maintenance, test gas and replace rupture safety discs in associated compartments	N/A	N/A	$12,973	Mar-12
12	WA70982	NTUA Twin Arrows Sub 69kV Tap	455,004	This project is to provide a transmission Point of Interconnection for the proposed Twin Arrows Project to the APS Coconino 69kV system, which is a tap into the Coconino – Winslow 69kV line. NTUA proposes to take delivery at the Coconino – Winslow 69kV line and build its own distribution substation. APS will build a new 69kV substation, as well as a new 69kV line (approximately 1.26 miles) off the existing Coconino – Winslow 69kV line to serve the proposed new NTUA (Twin Arrows) substation. APS will also install, on APS's 69kV side of the new substation, a 69kV breaker and a 69kV primary meter.	N/A	1.3	$12,968	Mar-12
13	WA94308	Winslow - Blueridge Final Phase 3	398,227	APS construction crew to re-insulate approximately 12 miles of 69kV line on the Blueridge to Winslow 69kV Line. Crews will also string and sag a common neutral where necessary (K cable). No Ground rods are necessary on Phase 3. The cosntruction of this line will be done by HOT STICK group as it is a radial line.	N/A	N/A	$11,349	Mar-12
14	W394163	Change Out Multiple Fixtures and Arms	$874,109	Change out 156 bad arms including three complete fixtures, 10 knee braces, 7 x-braces, multiple bells, misc. hardware, and stubbed 9 poles on the 88 mile Cholla-Coconino 230kV line. Significant bulldozer work was required in the Little Colorado River lowland area for structure stability, road work, and to help pull vehicles through the sand. The line was found to have insufficient ground clearance of 19' - 7" between poles #65/1 and #65/2. The conductors were re-sagged and brought up to the correct Ruling Span tension. This increased the ground clearance for this span to 27' - 0".	N/A	N/A	$22,859	Mar-12
15	W493449	Climbing Inspection Capital 2011	$856,098	Changed out 120 crossarms and braces including 7 poles. These crossarms were broken or split, and were discovered on the recent climbing inspection project.	N/A	N/A	$24,399	Mar-12
16	W495430	69kV and 12kV Overhead Conflict Relocation	$1,608,683	Need to relocate 69kV and 12kV overhead line in conflict with the new ADOT I-10 and Loop 303 interchange project. 53% of this project is reimbursable. $3,422,730 spent. APS's portion is shown in column D.	N/A	2.4	$47,760	Mar-12
17	W495430	69kV and 12kV overhead Conflict Relocation	3,194,983	Need to relocate 69kV and 12kV overhead line in conflict with a new ADOT I-10 and Loop 303 interchange project.	N/A	2.4	$91,057	Mar-12
18	W493449	2010 Capital Repairs 230-2	1,216,536	Crews need to change out arms on several structures near Verde substation. So far crews have replaced 226 arms including 7 complete fixtures, 9 knee-braces, 18 x-braces, 12 wood guy insulators, three poles, multiple bells, misc. hardware, and stubbed 5 poles on the 65 mile Cholla-Willow Lake 230kV line (230-2). Heavy equipment was needed to improve the condition of existing roads between Verde substation and Yavapai substation to accomodate access to several structures.	N/A	N/A	$34,671	Mar-12

Arizona Public Service Company
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19	W441712	Cholla: Replace 345kV CH1032 (B1213)	598,368	CH1032 is scheduled to be replaced in 2009 on the SFA Breaker Replacement Schedule.	N/A	N/A	$17,054	Mar-12
20	W393890	Capital 2009 For Verde - Coco NW-5	293,565	Faults that were found during line inspection were repaired under this work order.	N/A	N/A	$8,367	Mar-12
21	W493520	North Gila-TS8-Yucca 230kV Projects	$1,041,492	First phase of public line siting efforts for the North Gila to TS8 to Yucca 230kV projects and includes all public outreach activities, resource data collection and analysis, and CEC preparation.	N/A	N/A	$29,683	Mar-12
22	W493520	North Gila-TS8-Yucca 230kV Projects	1,845,256	APS is initiating the state line siting process for two new 230kV high-voltage transmission lines in the Yuma area. The project includes two major segments: a route between the North Gila Substation and the future TS-8 Substation (in-service date of 2014), and a route between the future TS-8 Substation and the Yucca Substation (in-service date TBD). This job (W493520) will include internal department and external consultant support for the following primary tasks: (1) project start-up and initial siting coordination activities, (2) public involvement and outreach, (3) environmental resource inventory and assessment, (4) alternative route evaluation and selection, and (5) development of an Application for a Certificate of Environmental Compatibility (CEC).	N/A	N/A	$52,590	Mar-12
23	T26223	1103020 Carol Springs-Greens Peak-S	1,161,622	This is a transmission hardware project to upgrade the microwave equipment.	N/A	N/A	$33,106	Mar-12
24	WA40971	Replace the HPOF Pressurization Pump	456,776	This proposal is for one (1) new outdoor dual (2-pump/relief ladder) pressurizing plant (USi Proposal QP-3163) for installation at the APS Indianola Substation. This modification will also remove the pressure isolation valves and control scheme which includes the MG6 relays located in the isolation cabinet which are currently used to provide the IN162 and IN562 trip signals on low oil pressure. The trip signals will now come from the new P.P. control scheme. UPDATE: New pressure trip switches will be aded to the "trafficaders" (pipe risers).	N/A	N/A	$11,716	Apr-12
25	WA22500	Westwing Substation: Add 500kV Reactor	$4,317,990	Add a 170 MVAR reactor at Westwing, which is needed for light load conditions. The EHV system and western Phoenix 230kV network exhibit high voltages during light load conditions. This reactor will provide voltage regulation to the main bus at the Westwing Substation. The project will install a new 3-phase switchable shunt reactor on the main bus at Westwing.	N/A	N/A	$98,450	Apr-12
26	WA22500	Westwing Substation: Add 500kV Reactor	3,627,199	70 MVAR reactor needed for light load conditions. EHV system and western Phoenix 230kV network exhibit high voltages during light load conditions, often above the operating limit. Palo Verde generation units are typically at full bucking during light load, and Redhawk generating units are run 'out of merit' to buck additional VARS off the system (e.g. reducing system voltages). Addition of SR298 will allow for more operational flexibility of voltage control, and partially mitigate the need for Redhawk to run 'out of merit' during light load conditions.	N/A	N/A	$82,700	Apr-12
27	W214014	Mazatzal 345/69/21kV Substation Access Road	$871,320	Road Access from Hwy 87 to be included with powerline and substation environmental assessment with Forest Service.	N/A	N/A	$17,383	Jun-12

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28	WA27593	Telegraph Pass New Tower	$633,448	This project is in support of the Q43 FERC Interconnection (new solar generation plant). APS will be building a new 500kV substation, known as Hoodoo Wash, in support of this new generation. Since this is a 500kV substation, we are required to have 2 diverse communication paths for protective relaying. Given the location of Q43, it was determined that two microwave paths would be used; one to Oatman and one to Telegraph Pass, both of which we had line of sight. At Telegraph Pass, we currently are using City/County of Yuma's tower for our communications. Our current agreement with them does not allow for the addition of the equipment needed for Q43. However, we have verbally come to an agreement to temporarily place our additional equipment in order to meet Hoodoo Wash's schedule, with the intent to move out of that location as soon as physically possible (no later than the end of 2012). As a result we need to procure a new site and build a new tower.	This project directly supports the new Hoodoo Wash 500kV substation, which is the interconnection point for the Agua Caliente Solar project (Q43) and the proposed interconnection point for multiple other solar projects requesting interconnection to APS.	N/A	$12,637	Jun-12
29	W461339	Moenkpi Shunt Reactor Replacement	3,180,544	This WA is to replace the Edison Reactors at Moenkopi per the Edison Reactor Replacement Schedule. SR162 and SR163 are to be shipped to Four Corners to match up with SR164 (FC-MK line). Fire Wall & Oil Containment Req'd. Three reactors to be set on cribbing, dressed by Siemens while foundations & barriers are being installed. Siemens will transfer fully dressed reactors to new foundation	N/A	N/A	$63,452	Jun-12
30	W214014	Mazatzal 345/69/21kV Substation, Access Road	662,843	The order reflects the acquisition of an approximate 25 acre transmission/distribution substation on Tonto National Forest, adjacent to the Cholla – Pinnacle Peak 345kV transmission line.	N/A	N/A	$13,224	Jun-12
31	W466913	Black Peak-Utting 69kV Line Rebuild	509,181	Rebuild Utting-McVay Tap 69kV line to 795ACSS (5.4 miles). Phase 3 of 5 of the Black Peak-Salome 69kV line rebuild. In 2011, the Black Peak - Utting 69kV line will be loaded to 106% for loss of the Eagle Eye - Salome 69kV line. To prevent shedding of load and voltage deviations of 13%, the Black Peak - Salome 69kV line will be rebuilt to 795ACSS.	N/A	5.4	$10,158	Jun-12
32	WA76367	Baja - Install one 69kV breaker	478,593	This WA to account for the labor and mateials needed to Install a new 69kV breaker, cap bank, control house, associated equipment, and it's respective foundations. The expansion of the equipment footprint will also require the removal of the perimeter chain link fence, addition of a control house, and construction of a new wall. The new breaker is needed for the new 13 mile 69kV line that will run from the existing Baja substation to the planned Waldrip switchyard. The new 69kV line is needed to loop in the San Luis and Baja substations into the APS sub transmission system in Yuma. The new 69kV line configuration will prevent power interruption and maintain a 97MW reserve requirement in the Yuma Area for loss of the Yucca - Laguna 69kV line. The new wall is a requirement Yuma County had as a stipulation in the granting of the Special Use Permit for the substation in 2007. The stipulation stated that "APS will replace the slated chain link fence with a nominal 10' high solid wall, typically CMU (Masonry), with an architecturally pleasing appearance, when the expansion is required."	N/A	N/A	$9,548	Jun-12
33	WA30305	Upgrade protection scheme at DG	250,755	Upgrade protection scheme at DG. Estimate 13 relays. Outages required. [P&C] [WENG]	N/A	N/A	$5,003	Jun-12

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34	WA54382	2011 Climbing Inspection - NW-3 - C	280,427	This WA will capture Time and material associated with items that are found during climbing inspections and are eligible for capitalization under our current retirement unit process.	N/A	N/A	$5,595	Jun-12
35	W406942	118 Street-Lone Mountain to Dixileta Dr.	485,861	Install two (2) separate 69kV trenches totaling 10,920 trench feet for the Via Dona Sub 69kV in and out design for the "future" installation (to be completed on WA28799) of 6-2500 KCMIL AL conductor XLPE cables per trench through the McDowell Sonoran Preserve from Dixileta Road to Lone Mountain Road along the 118th Street alignment to meet the City of Scottsdale Requirements for the Via Dona to Dale 69kV Installation and the Via Dona to Stage Coach 69kV Installation. This project provides a 69kV source for the future Via Dona 69/12kV substation.	N/A	2.1	$8,308	Jul-12
36	W496508	Sandvig to Youngs Canyon 69kV line	$630,200	Cost to secure 14.71 miles of right-of-way from the future Youngs Canyon Substation to Sandvig Substation in Flagstaff.	N/A	N/A	$8,980	Aug-12
37	W496508	Sandvig to Youngs Canyon 69kV line	344,414	Cost to secure 14.71 miles of right-of-way from the future Youngs Canyon Substation to Sandvig Substation in Flagstaff. The majority of the project crosses National Forest land with a small portion crossing State and Private land. Portions of the 230-1 right of way were used to minimize cost.	N/A	N/A	$4,908	Aug-12
38	W421823	Dugas-Morgan 500kV Line: Install	865,555	Install 45 miles of 96 count Optical Ground Wire (OPGW) on existing 500kV towers between Dugas and Morgan Substations. This OPGW will replace the east 7-#8 AW static wire on the east circuit of the parallel 500kV lines. The addition of this cable will complete a fiber link from Metro Phoenix north into Central Arizona. Also, this installation will provide the second fiber communication path to the recently completed Dugas Substation.	N/A	N/A	$4,934	Nov-12
39	W461668	Clarkdale Substation Purchase	$438,400	Purchase a new substation site 250' x 250' for a new 2 transformer sub to handle a projected thermal overload in this area.	N/A	N/A	$1,249	Dec-12
40	WA32700	Cholla Substation: 500kV 2011 SFA Breaker Replacement	$1,033,288	This project replaces 32+ year old CH652 breaker, associated CTs, and applicable switches. 500kV 2 pressure, live tank breakers are obsolete, require high maintenance, and are expensive to overhaul.	N/A	N/A	$2,945	Dec-12
41	WA5342	Villagio Montana Substation site purchase	$274,000	Purchase 2+ Acres to accommodate a proposed 69/12kV substation.	N/A	N/A	$781	Dec-12
42	WA32700	Cholla Substation: 500kV 2011 SFA Breaker Replacement	602,025	500kV 2 pressure, live tank breakers (model #550SFA40) are obsolete, require high maintenance, and are expensive to overhaul. The pneumatic mechanisms, mechanical linkages and interrupters are complex, difficult, troublesome and would now require a vendor presence to overhaul.	N/A	N/A	$1,716	Dec-12
43	TBD	Black Peak - Eagle Eye: Rebuild to 795 ACSS Phase 5 of 5 (12.3mi)	4,500,000	In 2011, the Black Peak - Utting 69kV line will be loaded to 106% for loss of the Eagle Eye - Salome 69kV line. To prevent an overload of 6% and voltage deviations of 13%, the Black Peak - Salome 69kV line will be rebuilt to 795ACSS.	N/A	12.3	$12,825	Dec-12
44	W466919	Youngs Canyon (Flagstaff): 69kV in-and-out from CQ-WS line	505,000	The proposed facilities provides a second transmission source into the Flagstaff area providing continuity of service and prevents shedding of up to 39 MW of load for the loss of the existing 230/69kV Coconino substation.	N/A	1	$1,439	Dec-12

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45	TBD	Country Club - Evans Churchill 69kV Reconductor	1,800,000	In 2012, the Country Club - Evans Churchill 69kV line will be loaded to 104% for loss of the Fillmore - West Phoenix 69kV line. To prevent an overload, this line will be reconductored to 795ACSS.	N/A	1.3	$5,130	Dec-12
46	WA81120	Abengoa Solar Network Upgrades 69kV	927,400	The Gila Bend - Cotton Center 69kV is currently a 336 wire and cannot handle load that will be delivered from Solana Solar Field through the APS 230kV Transmission system (Q44 WA46633 & WA46654). By rebuilding to 795 ACSS, APS will be able to distribute the newly added 280 MW through GB230/69kV System.	This project directly supports the Abengoa Solana 280MW concentrated solar project (Q44), allowing the output to be distributed throughout the 69kV system in Gila Bend.	19	$26,431	Dec-12
47	W460748	Fillmore to McDowell - 69kV Reconductor	$3,760,000	The Fillmore - McDowell 69kV rebuild is needed to preserve continuity of service for the loss of the Country Club - Evans Churchill 69kV transmission line.	N/A	3.1	$10,716	Dec-12
48	WA54513	Kyrene 3rd Transformer	9,747,528	The addition of a 3rd 500/230kV transformer at the Kyrene yard is required to address overload conditions on the existing 500/230kV transformers due to load growth issues. The existing bank 7 - 500/230kV transformer will overload if there is an outage on the existing bank 6 - 500/230kV transformer during high load demands and generation at the Hassayampa / PV yards. The addition of the 3rd transformer increases the 230kV fault current to 57kA which requires replacement & upgrade of several 230kV breakers. Keeping the two Kyrene 230kV yards tied together reduces the construction outages on the lines and prevents a reduction in Valley Maximum Load Serving Capability (MLSC).	N/A	N/A	$27,780	Dec-12
49	T27054H	1108007 EMS Test Environment	3,340,533	Transmission Hardware Upgrade to APS EMS. This software controls the APS grid.	N/A	N/A	$9,521	Dec-12
50	WA47436	Replace Transformer at the Joint APS-SRP Rudd substation	3,272,841	The damaged transformer at the Rudd substation is critical to the Phoenix Valley for load serving capability and access to Palo Verde energy. A replacement transformer was moved from the joint APS-SRP Morgan to Pinnacle Peak project. This transformer was placed in-service in the 2A position at the beginning of June. A new transformer has been ordered to replace the failed transformer that was in the 3A position and it is scheduled to arrive in May of 2011. SRP and APS approved to keep the 2A position replacement transformer at Rudd substation as a long-term spare.	N/A	N/A	$9,328	Dec-12
51	W360179	Gateway 69kV Line to Gavilan Peak	1,808,131	Build out of lead of an existing 12kV line a new 69kV line/12kV underbuild from 7th Avenue north of Carefree to Desert Hills Drive. Existing 12kV line on 7th Avenue north of Carefree Highway will be removed during cutover. 69kV line on Desert Hills will have to be re-built from 7th Avenue up to Gavilan Park Substation. 69kV transitions underground from pole on 7th Avenue north of Carefree, south to new Gateway Switchyard with in service date of 6-1-12. Majority of 69kV underground work has been completed. There are right of way issues and an existing 69kV overhead line crossing over building that may have to be relocated. This job is being worked with Gateway site prep W493968(2011), Gateway Switchyard W493968(2012) & Biscuit Flat-Pioneer 69kV OH (in and out) to Gateway Switchyard W122074(2012).	N/A	11.3	$5,153	Dec-12

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52	W213771	Youngs Canyon Substation: 345/69KV Build	864,818	This project is to construct a new 345/69kV substation in Winona, Arizona. This substation will support the load in the Northern Arizona area. The feed for the substation will come from WAPA's Flagstaff Substation at 345kV. The power will be transformed to 69kV and will be tied in to the existing Coconino - Winslow 69kV line. In addition, a new 69kV line constructed from Sandvig Sub will terminate at Young's canyon.	N/A	N/A	$2,465	Dec-12
53	W475012	Palo Verde-Delaney 500kV Line	546,770	This is part of the Palo Verde-Sun Valley 500kV project. This charge number is to construct the 500kV line between the Palo Verde switchyard and the Delany switchyard. The Palo Verde-Delany portion of the project is the initial phase, which is needed to interconnect three Solar Generating projects, totaling 1500 MWs, that have requested interconnection into the transmission system.	The Delaney substation provides the interconnection point for three solar generation projects, totaling 1500 MWs and the line back to Palo Verde is needed to transmit their output. Also, as part of the overall Palo Verde-Sun Valley 500kV project it will increase the ability to schedule renewables to Phoenix Valley by increasing the scheduling capability from PV Hub.	15	$1,558	Dec-12
54	W466918	Youngs Canyon-Sandvig 69kV line Phase I	326,966	In 2012 build 14.6 miles of 69kV from proposed Youngs Canyon sub east of Winona, along WAPA 345 corridor built in new easement approx. 5 miles of 795 ACSS, need to build a 600x 600 staging area for bunkers, mobil minies and on laydown, fly yard. Build a second fly yard / laydown yard on forest land approx. 1/4 mile west of Leupp road south of APS 230kV yard. Build a third Fly Yard at the Wild Cat Hill general area to fly out the remainder of poles. Re-route line around school bus storage facility to avoid having 3 circuits on Santa Fe Drive. Coordinate drops into Sandvig so that no crossings occur over Elden or Tuba city lines.	N/A	9.3	$932	Dec-12
55	W475015	Palo Verde: Build New 500kV Bay	276,162	This project is for the costs of engineering, material procurement and construction of a new bay at the Palo Verde Switchyard in Tonopah, AZ. The new bay is for the new Palo Verde-Delaney 500kV line. The work for this project will be done by SRP because they are the operators of the Palo Verde Switchyard.	The Delaney substation provides the interconnection point for three solar generation projects, totalling 1500 MWs and the line back to Palo Verde is needed to transmit their output. Also, as part of the overall Palo Verde-Sun Valley 500kV project it will increase the ability to schedule renewables to the Phoenix Valley by increasing the scheduling capability from the PV Hub.	N/A	$787	Dec-12

Total estimated projects placed in-service in 2012 exceeding $250,000	**$74,914,907**
Work Orders < $250k	**$2,788,973**
Total additions	**$77,703,880**

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2013 Transmission Estimated Addition Dollars and O&M

1	TBD	Doubletree 69kV In & Out Conversion	2,400,000	Convert the Doubletree substation to an In & Out with 69kV line breakers and a second 69/12kV transformer. Rebuild the existing 69kV tap into a double-circuit from the Century-Roadrunner 69kV line with 795ACSS. The Doubletree In & Out conversion will increase reliability by eliminating the radial line into the substation, as well as adding a second transformer for redundancy.	N/A	1	$68,400	Mar-13
2	W335853	Delaney Substation - 500kV Switchyard	4,460,650	This project is to construct a new 500kV switchyard near Tonopah, Arizona. This project is part of the first step in the plan to construct a link from the Palo Verde Hub to the Pinnacle Peak Bus. When completed this link will create a new 500kV path between the Palo Verde Transmission system, the Navajo transmission system and the Four Corners/Cholla Transmission system. This link will help APS to support our customers and comply with NERC reliability standards and federal regulations. The Civil and below grade work will be done in 2011. The project is scheduled for energization by 6/1/2013. The current proposed ownership precentages for this component are APS 80%, SRP 10%, CAWCD 10%. APS's share is shown in the CWIP Amount.	This project is identified in APS's Renewable Transmission Action Plan(RTAP) filing at the Arizona Corporation Comission(ACC). This project was identified as a project that has the potential to increase the renewable energy development in Arizona and is also one of the 'Top 3' renewable Transmission projects in a fiing at the ACC. The Delaney substation provides the interconnection point for three solar generation projects, totalling 1500 MWs and the line back to Palo Verde is needed to transmit their output. Also, as part of the overall Palo Verde-Sun Valley 500kV project it will increase the ability to schedule renewables to the Phoenix Valley by increasing the scheduling capability from the PV Hub.	N/A	$88,990	Jun-13
3	W309024	Palo Verde-North Gila 500kV Line #2 - Phase 2	1,780,119	Design and build approximately 113 miles of new 500kV line from the Palo Verde Hub to the North Gila Substation. (BLM: 55.5 mi BOR: 2 mi YPG: 8.5 mi State: 25 mi Private: 22 mi Total: 113 mi) This is the second phase of the project. The project is broken into 2 phases.	N/A	N/A	$35,513	Jun-13
4	WA1779	Scatter Wash Sub(TS6): 230/69kV Site	339,460	Scatter Wash substation formerly known as TS6 site prep located on SW corner of Happy Valley Road & Central Avenue. Land has purchased 24 acres for a 230/69kV substation. Estimates for Scatterwash were based on the following assumptions: Site access is off of Happy Valley Rd. Native plants will need to be inventoried and salvaged. CMU Wall on Happy Valley Rd side with returns at East & West of developed property and fence for the remainder. All below grade costs from electrical engineer including communication and security below grade costs of $641,000 are included in civil site work order. All below grade work will be outsourced under civil package. Engineering and Design for the site, G & D, Street Improvements, and Landscaping will be prepared by a Consultant. Consultant will be responsible for obtaining necessary permits prior to construction. Scatter Wash substation 230/69kV job number to procure and build is being charged against WA1744. Scatterwash 230kV OH line drop job number to procure and build is being charged against WA1824.	N/A	N/A	$6,772	Jun-13
5	TBD	Buckeye - Wintersburg 69kV Rebuild	7,500,000	Rebuild the 69kV conductor from Buckeye west to Wintersburg Tap due to an overload of 10% for loss of the Gila Bend - Panda 230kV line.	N/A	16	$149,625	Jun-13

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6	TBD	East End - Raintree 69kV Line	4,450,000	Build a new 69kV line between East End and Raintree Substations. In 2013, overloads will be present on the Altadena - East End 69kV line (5%) for loss of the Downing - Pinnacle Peak 69kV line, as well as the Downing - East End 69kV line (7%) for loss of the Rawhide - Pinnacle Peak 69kV line.	N/A	2.5	$88,778	Jun-13
7	W300496	TS2 230/69kV Substation Land Purchase	$2,787,840	Purchase a 10 acre substation site to be served from the Palm Valley to Trilby Wash 230kV line and will provide for future growth in the west Metro Phoenix area.	N/A	N/A	$7,945	Dec-13
8	W420700	Palo Verde to North Gila 500kV #2 - Phase 1	4,431,162	Design and build approximately 113 miles of new 500kV line from the Palo Verde Hub to the North Gila Substation. (BLM: 55.5 mi BOR: 2 mi YPG: 8.5 mi State: 25 mi Private: 22 mi Total: 113 mi) This is the first phase of the project. The project is broken into 2 phases.	This project is identified in APS's Renewable Transmission Action Plan(RTAP) filing at the Arizona Corporation Comission(ACC). This project was identified as a project that has the potential to increase the renewable energy development in Arizona and is also one of the 'Top 3' renewable Transmission projects in a filing at the ACC. The Palo Verde to North Gila 500kV #2 line provides the interconnection point for multiple solar generation projects in APS's and CAISO's interconnection queues. The project will increase the ability to schedule renewable resources, both into AZ from CA, and into CA from AZ.	113	$12,629	Dec-13
9	W452109	(Sun Valley) TS-5 to (Morgan) TS-9	3,005,218	This work order is to complete the associated work following the granting of the State CEC for the Sun Valley-Morgan project. This work order will address the mandated CEC compliance work, the processing of the federal BLM permit, and Arizona State Land permit.	Helps schedule renewables to the Phoenix Valley by increasing the scheduling capability from the PV Hub and Navajo system.	40	$8,565	Dec-13
10	WA77937	Coconino Rebuild to Ring Bus	1,240,481	Replace (3) 230kV breakers - Maintenance supplied breakers. Replace 230kV bi-directional switches. Construct new 230kV control building. Construct new 230kV relay panels. Construct new ring bus arrangement. B524 and B802 are at end of life at the Coconino 230kV yard. The yard is currently configured as a "Main and Transfer" without a transfer breaker. Obtaining outages for scheduled maintenance is problematic. With two breakers needing to be changed out this year, the project has an "opportunity" to reconfigure the substation into a Ring Bus.	N/A	N/A	$3,535	Dec-13
11	TBD	Canal 69kV Line Breakers	600,000	Add 69kV line breakers at Canal substation to increase reliability. In addition, the line breakers will prevent loss of a 69/12kV transformer for loss of any 69kV line coming into the substation.	N/A	N/A	$1,710	Dec-13
12	WA1154147	Youngs Canyon - Sandvig 69kV Line Phase II	3,600,000	The proposed facilities provides a second transmission source into the Flagstaff area providing continuity of service and prevents shedding of up to 39 MW of load for the loss of the existing 230/69kV Coconino substation.	N/A	5.3	$102,600	Mar-13

Total estimated projects placed in-service in 2012 exceeding $250,000 **$32,994,930**

All additional projects **$250,201**
Total additions **$33,245,131**

ATTACHMENT E

ARIZONA PUBLIC SERVICE COMPANY
Estimated Monthly Bill Impacts of 2012 TCA Reset

Current Annual Average Monthly Bill (1)

	Residential (Average - All Rates)	Residential (Rate E-12)	Commercial (Rate E-32, 0-20 kW)	Commercial (Rate E-32, > 20 kW)	Industrial (Rate E34/35)
Average kWh per Month	1,100	691	1,430	62,238	3,581,412
Base Rates	$123.90	$86.40	$202.30	$5,977.26	$249,125.86
PSA- Forward Component	($5.08)	($3.19)	($6.60)	($287.36)	($16,535.38)
PSA - Historical Component	$0.49	$0.30	$0.63	$27.33	$1,572.24
TCA	$4.63	$2.91	$3.53	$163.78	$4,061.46
EIS	$0.18	$0.11	$0.23	$9.96	$573.03
RES	$3.84	$3.84	$13.71	$142.44	$427.33
DSMAC	$2.99	$1.88	$3.89	$189.52	$6,395.98
Total	$130.95	$92.25	$217.69	$6,222.93	$245,620.52

Proposed Annual Average Monthly Bill (2)

	Residential (Average - All Rates)	Residential (Rate E-12)	Commercial (Rate E-32, 0-20 kW)	Commercial (Rate E-32, > 20 kW)	Industrial (Rate E34/35)
Average kWh per Month	1,100	691	1,430	62,238	3,581,412
Base Rates	$123.90	$86.40	$202.30	$5,977.26	$249,125.86
PSA- Forward Component	($5.08)	($3.19)	($6.60)	($287.36)	($16,535.38)
PSA - Historical Component	$0.49	$0.30	$0.63	$27.33	$1,572.24
TCA	$5.94	$3.73	$3.65	$158.90	$4,939.80
EIS	$0.18	$0.11	$0.23	$9.96	$573.03
RES	$3.84	$3.84	$13.71	$142.44	$427.33
DSMAC	$2.99	$1.88	$3.89	$189.52	$6,395.98
Total	$132.26	$93.07	$217.81	$6,218.05	$246,498.86

Bill Impact

	Residential (Average - All Rates)	Residential (Rate E-12)	Commercial (Rate E-32, 0-20 kW)	Commercial (Rate E-32, > 20 kW)	Industrial (Rate E34/35)
Dollars	$1.31	$0.82	$0.12	($4.88)	$878.34
Percent	1.00%	0.89%	0.06%	-0.08%	0.36%

Notes:
(1) Bill excludes regulatory assessment charge, taxes and fees. Current TCA charges. Other adjustor levels in effect as of March 1, 2012.
(2) Bill includes proposed TCA charges. Other adjustor levels in effect as of March 1, 2012.